

DOCKET NO. 2002.01.006.WSO
U.S. SERIAL NO. 10/024,687
PATENT

IN THE CLAIMS

The current claims follow. For claims not marked as amended in this response, any difference in the claims below and the previous state of the claims is unintentional and in the nature of a typographical error.

1. – 36. (Cancelled)

37. (Original) For use in a wireless network communications system, an apparatus for increasing a data transmission rate in a mobile wireless communication channel, said apparatus comprising a base station that is capable of:

sending data packets to a mobile station on a first channel at a first data rate;

receiving a negative acknowledgment signal from said mobile station that said mobile station failed to correctly receive at least one data packet;

sending at least one replacement data packet to said mobile station on a second channel at a second higher data rate; and

communicating with a replacement data packet controller capable of:

receiving said at least one replacement data packet from said base station; and

incorporating said at least one replacement data packet into a data packet stream to replace one of: a missing data packet and an error data packet.

DOCKET NO. 2002.01.006.WSO
U.S. SERIAL NO. 10/024,687
PATENT

38. (Original) The apparatus as set forth in Claim 37 wherein said base station is capable of receiving an acknowledgment signal from said mobile station that said mobile station has received said at least one replacement data packet from said base station, and

wherein in response to receiving said acknowledgment signal said base station is further capable of:

ceasing sending said at least one replacement data packet on said second channel at said second higher data rate; and

sending data packets to said mobile station on said first channel at said first data rate.

39. (Original) The apparatus as set forth in Claim 37 wherein said first channel and said second channel are at least one of: a fundamental channel, a first supplemental channel, a second supplemental channel, the same supplemental channel and a first supplemental channel with an increased bandwidth.

40. (Original) The apparatus as set forth in Claim 37 wherein said first data rate on said first channel is fourteen and one tenths kilobits per second and wherein said second higher data rate on said second channel is greater than fourteen and one tenths kilobits per second.

41. (Original) The apparatus as set forth in Claim 37 wherein said first data rate on said first channel is seventy two kilobits per second and wherein said second higher data rate on said second channel is greater than seventy two kilobits per second.

DOCKET NO. 2002.01.006.WSO
U.S. SERIAL NO. 10/024,687
PATENT

42. (Original) For use in a wireless network communications system, an apparatus for increasing a data transmission rate during handing off, said apparatus comprising:

a first base station capable of sending data packets to a second base station on a first channel at a first data rate;

wherein said second base station is capable of sending said data packets to a mobile station on a second channel;

wherein said first base station is capable of receiving a negative acknowledgment signal from said mobile station that said mobile station failed to correctly receive at least one data packet from said second base station;

wherein said first base station and said second base station are capable of sending at least one replacement data packet to said mobile station on said second channel at a second higher data rate; and

wherein said at least one replacement data packet replaces one of: a missing data packet and an error data packet.

43. (Original) The apparatus as set forth in Claim 42 wherein said first base station is capable of:

sending a first A3 physical transition directive message to said second base station to cause said second base station to increase a bandwidth of said second channel to said mobile station; and

DOCKET No. 2002.01.006.WSO
U.S. SERIAL NO. 10/024,687
PATENT

receiving an acknowledgment signal from said mobile station that said mobile station has received said at least one replacement data packet;

wherein in response to receiving said acknowledgment signal from said mobile station, said first base station is further capable of sending a second A3 physical transition directive message to said second base station to cause said second base station to decrease said bandwidth of said second channel to said mobile station;

wherein said first base station and said second base station are further capable of ceasing to send said at least one replacement data packet on said second channel; and

wherein said first base station and said second base station are further capable of sending data packets to said mobile station on said first channel at said first data rate.

44. (Original) The apparatus as set forth in Claim 43 wherein said first and second A3 physical transition directive messages contain information comprising one of: an element identifier, a length, a data rate and an action time.

45. (Original) The apparatus as set forth in Claim 42 wherein said first base station is capable of:

sending a first IS-2000 message to said second base station to cause said second base station to activate said second channel to said mobile station; and

receiving an acknowledgment signal from said mobile station that said mobile station has received said at least one replacement data packet;

DOCKET NO. 2002.01.006.WSO
U.S. SERIAL NO. 10/024,687
PATENT

wherein in response to receiving said acknowledgment signal from said mobile station, said first base station is further capable of sending a second IS-2000 message to said second base station to cause said second base station to deactivate said second channel to said mobile station;

wherein said first base station and said second base station are further capable of ceasing to send said at least one replacement data packet on said second channel; and

wherein said first base station and said second base station are further capable of sending data packets to said mobile station on said first channel at said first data rate.

46. (Original) The apparatus as set forth in Claim 42 wherein said first channel and said second channel are one of: a fundamental channel, a first supplemental channel, a second supplemental channel, the same supplemental channel and the first supplemental channel with an increased bandwidth.

47. (Original) The apparatus as set forth in Claim 42 wherein said first data rate on said first channel is seventy two kilobits per second and wherein said second higher data rate on said increased bandwidth second channel is greater than seventy two kilobits per second.

48. (Original) The apparatus as set forth in Claim 42 wherein said first data rate on said first channel is fourteen and one tenths kilobits per second and wherein said second higher data rate on said second channel is greater than fourteen and one tenths kilobits per second.

DOCKET NO. 2002.01.006.WSO
U.S. SERIAL NO. 10/024,687
PATENT

49. (Original) For use in a wireless network communications system, a method for increasing a data transmission rate in a mobile wireless communication channel, said method comprising the steps of:

sending data packets from a base station to a mobile station on a first channel at a first data rate;

receiving in said base station a negative acknowledgment signal from said mobile station that said mobile station failed to correctly receive at least one data packet; and

sending at least one replacement data packet from said base station to said mobile station on a second channel at a second higher data rate;

wherein said at least one replacement data packet replaces one of: a missing data packet and an error data packet.

50. (Original) The method as set forth in Claim 49 further comprising the steps of:

receiving in said base station an acknowledgment signal from said mobile station that said mobile station has received said at least one replacement data packet from said base station;

in response to receiving said acknowledgment signal, ceasing to send said at least one replacement data packet on said second channel; and

sending data packets from said base station to said mobile station on said first channel at said first data rate.

DOCKET NO. 2002.01.006.WSO
U.S. SERIAL NO. 10/024,687
PATENT

51. (Currently Amended) The method as set forth in Claim ~~53~~ 49 wherein said first channel and said second channel is one of a fundamental channel, a first supplemental channel, a second supplemental channel, the same supplemental channel and the first supplemental channel with an increased bandwidth.

52. (Original) The method as set forth in Claim 49 wherein said first data rate on said first channel is seventy two kilobits per second and wherein said second higher data rate on said second channel is greater than seventy two kilobits per second.

53. (Original) The method as set forth in Claim 49 wherein said first data rate on said first channel is fourteen and one tenths kilobits per second and wherein said second higher data rate on said second channel is greater than fourteen and one tenths kilobits per second.

54. (Original) For use in a wireless network communications system, a method for increasing a data transmission rate during hand off, said method comprising the steps of:

sending data packets from a first base station to a second base station on a first channel at a first data rate;

sending said data packets from said second base station to a mobile station on said first channel at said first data rate;

DOCKET NO. 2002.01.006.WSO
U.S. SERIAL NO. 10/024,687
PATENT

receiving in said first base station a negative acknowledgment signal from said mobile station that said mobile station failed to correctly receive at least one data packet from said second base station; and

sending at least one replacement data packet from said first base station and said second base station to said mobile station on a second channel at a second higher data rate,

wherein said at least one replacement data packet replaces one of: a missing data packet and an error data packet.

55. (Original) The method as set forth in Claim 54 further comprising:

sending a first A3 physical transition directive message from said first base station to said second base station to cause said second base station to increase a bandwidth of a second channel to said mobile station;

receiving in said base station an acknowledgment signal from said mobile station that said mobile station has received said at least one replacement data packet;

wherein in response to receiving said acknowledgment signal, sending a second A3 physical transition directive message from said first base station to said second base station to cause said second base station to decrease said bandwidth of said second channel to said mobile station;

ceasing to send from said first base station and said second base station said at least one replacement data packet on said second channel at said second higher data rate; and

DOCKET NO. 2002.01.006.WSO
U.S. SERIAL NO. 10/024,687
PATENT

wherein in response to ceasing to send said at least one replacement data packet, the method further comprises sending data packets from said first base station and said second base station to said mobile station on said first channel at said first data rate.

56. (Original) The method as set forth in Claim 55 wherein said first and second A3 physical transition directive messages contain information comprising one of: an element identifier, a length, a data rate, and an action time.

57. (Original) The method as set forth in Claim 54 further comprising:

sending a first IS-2000 message from said first base station to said second base station to cause said second base station to activate said second channel to said mobile station;

receiving in said base station an acknowledgment signal from said mobile station that said mobile station has received said at least one replacement data packet;

in response to receiving said acknowledgment signal from said mobile station, sending a second IS-2000 message from said first base station to said second base station to cause said second base station to deactivate said second channel to said mobile station;

ceasing to send said at least one replacement data packet from said first base station and said second base station on said second channel at said second higher data rate; and

sending data packets from said first base station and said second base station to said mobile station on said first channel at said first data rate.

DOCKET No. 2002.01.006.WSO
U.S. SERIAL No. 10/024,687
PATENT

58. (Original) The method as set forth in Claim 54 wherein said first channel and said second channel are one of: a fundamental channel, a first supplemental channel, a second supplemental channel, the same supplemental channel and the first supplemental channel with an increased bandwidth.

59. (Original) The method as set forth in Claim 54 wherein said first data rate on said first channel is seventy two kilobits per second and wherein said second higher data rate on said increased bandwidth second channel is greater than seventy two kilobits per second.

60. (Original) The method as set forth in Claim 59 wherein said first data rate on said first channel is fourteen and one tenths kilobits per second and wherein said second higher data rate on said second channel is greater than fourteen and one tenths kilobits per second.

61. (Original) For use in a wireless network communications system, an apparatus for use in a mobile station to increase a data transmission rate within said system, said apparatus comprising:

a main controller;

a replacement data packet acquisition application executable by said main controller, said replacement data packet acquisition application capable of acquiring at least one replacement data packet from a base station; and

a replacement data packet integration application executable by said main controller, said replacement data packet integration application capable of integrating said at least one replacement

DOCKET NO. 2002.01.006.WSO
U.S. SERIAL NO. 10/024,687
PATENT

data packet from said base station into a data packet stream to replace one of: a missing data packet and an error data packet;

wherein said apparatus is capable of:

receiving data packets from a base station on a first channel at a first data rate;

sending a negative acknowledgment signal to said base station that said mobile station failed to correctly receive at least one data packet;

receiving at least one replacement data packet from said base station on a second channel at a second higher data rate;

sending an acknowledgment signal to said base station that said mobile station has received said at least one replacement data packet from said base station; and

wherein after sending the acknowledgment signal said apparatus is further capable of ceasing to send said at least one replacement data packet on said second channel.

62. (Original) The apparatus as set forth in Claim 61 wherein said first channel and said second channel is one of: a fundamental channel, a first supplemental channel, a second supplemental channel, the same supplemental channel and the first supplemental channel with an increased bandwidth.

63. (Currently Amended) The apparatus as set forth in Claim 61 ~~as set forth in Claim 61~~ wherein said first data rate on said first channel is seventy two kilobits per second and wherein said second higher data rate on said second channel is greater than seventy two kilobits per second.

DOCKET NO. 2002.01.006.WSO
U.S. SERIAL NO. 10/024,687
PATENT

64. (Original) The apparatus as set forth in Claim 61 wherein said first data rate on said first channel is fourteen and one tenths kilobits per second and wherein said second higher data rate on said second channel is greater than fourteen and one tenths kilobits per second.

65. (Original) For use in a wireless network communications system, an apparatus for use in a mobile station to increase a data transmission rate within said system during hand off from a first base station to a second base station, said apparatus comprising:

a main controller;

a replacement data packet acquisition application executable by said main controller, said replacement data packet acquisition application capable of acquiring at least one replacement data packet from a base station; and

a replacement data packet integration application executable by said main controller, said replacement data packet integration application capable of integrating said at least one replacement data packet from said base station into a data packet stream to replace one of: a missing data packet and an error data packet,

wherein said apparatus is capable of:

receiving a data packet from said second base station on a first channel at a first data rate;

sending a negative acknowledgment signal to said first base station that said mobile station failed to correctly receive at least one data packet from said second base station; and

DOCKET No. 2002.01.006.WSO
U.S. SERIAL No. 10/024,687
PATENT

wherein after sending the negative acknowledgment signal to said first base station, the apparatus is further capable of receiving at least one replacement data packet from said first base station and said second base station on said second channel at a second higher data rate,
wherein said at least one replacement data packet replaces one of: a missing data packet and an error data packet.

66. (Original) The apparatus as set forth in Claim 65 wherein said first channel and said second channel are one of: a fundamental channel, a first supplemental channel, a second supplemental channel, the same supplemental channel and the first supplemental channel with an increased bandwidth.

67. (Original) The apparatus as set forth in Claim 65 wherein said first data rate on said first channel is seventy two kilobits per second and wherein said second higher data rate on said increased bandwidth second channel is greater than seventy two kilobits per second.

68. (Original) The apparatus as set forth in Claim 65 wherein said first data rate on said first channel is fourteen and one tenths kilobits per second and wherein said second higher data rate on said second channel is greater than fourteen and one tenths kilobits per second.